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North Star Intellectual Property Law, PC
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EXAMINER	
ALVESTEFFER, STEPHEN D	

ART UNIT	PAPER NUMBER
2175	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/822,772	PARK ET AL.	
	Examiner	Art Unit	
	Stephen Alvesteffer	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33,35 and 37-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33,35 and 37-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20101101*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the Amendment filed September 9, 2010. Claim 38 is amended. Claims 1-32, 34, and 36 are previously cancelled. Claims 45 and 46 are new. Claims 33 and 35 are independent. Claims 33, 35, and 37-46 remain pending.

The Information Disclosure Statement (IDS) filed November 1, 2010 was considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 33, 35, and 37-39, and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (hereinafter Kim), United States Patent Application Publication 2003/0012558 and Taira et al. (hereinafter Taira), United States Patent 6,009,234.

Regarding claim 33, Kim substantially teaches an information storage medium for use with a reproducing apparatus providing a visual display of interactive graphics, the information storage medium comprising:

an audio-visual (AV) data stream (see Kim paragraph [0042], "*the reproducing apparatus decodes audio/video (AV) data recorded on a DVD 300 and reproduces the AV data as an AV data stream*"); and

a plurality of interactive graphics streams corresponding to the audio-visual data stream, which are used to control reproduction of the audio-visual data stream (see Kim paragraph [0047], "*The DVD 300 contains multiple markup documents having the same meaning of the content in different languages so that the text information included in the markup documents can be displayed in multiple languages. That is, the DVD 300 includes the multiple markup documents which contain exactly the same meaning text information in respective multiple languages*");

wherein:

each of the plurality of interactive graphics streams corresponds to a different one of a plurality of languages, and can be reproduced by the reproducing apparatus with the audio-visual data stream (see Kim paragraph [0051], "*the DVD 300 includes the*

video data having first captions and interactive data having second captions. The information storage medium includes the AV data representing the video picture and the sub-picture data representing the first captions to be displayed in respective multiple languages with the video picture in a video picture section of the display window defined by the markup document. The information storage medium also includes in the interactive data multi -language markup document information containing the text information representing second captions to be displayed in respective multiple languages in a text section of the markup document");

one interactive graphics stream among the plurality of interactive graphics streams is selected by attribute information stored in a player status register in the reproducing apparatus (Taira, addressed below); and

the selected interactive graphics stream is reproduced by the reproducing apparatus together with the audio-visual data stream (see Kim paragraph [0057], "*if the user selects Korean, Japanese, or English for the caption, the markup document is displayed in the corresponding language, Korean, Japanese, or English*").

Kim does not disclose one interactive graphics stream among the plurality of interactive graphics streams is selected by attribute information stored in a player status register in the reproducing apparatus. Kim only teaches user selection of a language. Taira teaches a method of reproducing information in which a language code is stored in the player apparatus and is used to select a data stream (see Taira column 43 lines 51-56, "*the language previously held in the apparatus, or the player, is referred to and an audio stream and a video stream are set*"). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to store the language information in the reproducing apparatus as taught by Taira in the invention of Kim so that the user does not have to redundantly set the language each time the recording medium is played.

Regarding claim 35, Kim substantially teaches an apparatus to provide a visual display of interactive graphics by using an audio-visual (AV) data stream and one of a plurality of interactive graphics streams corresponding to the audio-visual data stream stored on an information storage medium, the apparatus comprising:

a processor to obtain attribute information from a player status register in the apparatus (Taira, addressed below); and

a decoder to select one interactive graphics stream corresponding to the obtained attribute information from among the plurality of interactive graphics streams from the information storage medium, and reproduce the selected interactive graphics stream together with the audio-visual data stream (see Kim paragraph [0057], "*if the user selects Korean, Japanese, or English for the caption, the markup document is displayed in the corresponding language, Korean, Japanese, or English*");

wherein:

the plurality of interactive graphics streams are used to control reproduction of the audio-visual data stream (see Kim paragraph [0047], "*The DVD 300 contains multiple markup documents having the same meaning of the content in different languages so that the text information included in the markup documents can be displayed in multiple languages. That is, the DVD 300 includes the multiple markup*

documents which contain exactly the same meaning text information in respective multiple languages"); and

each of the plurality of interactive graphics streams corresponds to a different one of a plurality of languages and can be reproduced with the audio-visual data stream (see Kim paragraph [0051], "*the DVD 300 includes the video data having first captions and interactive data having second captions. The information storage medium includes the AV data representing the video picture and the sub-picture data representing the first captions to be displayed in respective multiple languages with the video picture in a video picture section of the display window defined by the markup document. The information storage medium also includes in the interactive data multi -language markup document information containing the text information representing second captions to be displayed in respective multiple languages in a text section of the markup document*").

Kim does not disclose a processor to obtain attribute information from a player status register in the apparatus. Kim only teaches user selection of a language. Taira teaches a method of reproducing information in which a language code is stored in the player apparatus and is used to select a data stream (see Taira column 43 lines 51-56, "*the language previously held in the apparatus, or the player, is referred to and an audio stream and a video stream are set*"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the language information in the reproducing apparatus as taught by Taira in the invention of Kim so that the user does not have to redundantly set the language each time the recording medium is played.

Regarding claim 37, Kim/Taira teaches that the processor executes a program object comprised of navigation commands that is related to the audio-visual data stream to enable the selecting of the one interactive graphics stream (see Kim paragraph [0069], "*If the language change is possible, the presentation engines displays a menu where the kind of displayable languages that can be selected is indicated by referring to the displayable language information of the multi -language markup document information in operation 807*").

Regarding claim 38, Kim/Taira teaches that the processor loads and executes an interactive graphics stream change program included in the one interactive graphics stream that is being reproduced, and reads and reproduces another interactive graphics stream selected according to new attribute information obtained by executing the interactive graphics stream change program (see Kim paragraph [0069], "*If the language change is possible, the presentation engines displays a menu where the kind of displayable languages that can be selected is indicated by referring to the displayable language information of the multi -language markup document information in operation 807. If the user selects the language in operation 808, the presentation engine 5 retrieves the relevant markup document by referring to the language directory information (and the language mapping table) and the reader 1 reads the retrieved markup document in operation 809. The presentation engine 5 displays the read markup document in operation 810*").

Regarding claim 39, Kim/Taira teaches that the interactive graphics stream change program is a button command included in a button object (see Kim paragraph

[0069], "*the presentation engines displays a menu where the kind of displayable languages that can be selected is indicated by referring to the displayable language information of the multi -language markup document information in operation 807*").

Regarding claim 41, Kim/Taira teaches that if the plurality of interactive graphics streams do not include an interactive graphics stream corresponding to the obtained attribute information, the reproducing apparatus stores a stream number of a predetermined interactive graphics stream of the plurality of interactive graphics streams in the player status register in the reproducing apparatus, and reproduces the predetermined interactive graphics stream together with the audio-visual data stream (see Kim paragraph [0044], "*In terms of hardware, the presentation engine 5 is set to have a first default value of markup document language information of the reproducing apparatus, that is, the information about a language of the markup document that is displayed when the interactive mode is selected. For example, the reproducing apparatus to be sold in English-speaking nations has the markup document language information that commands a selection of the markup document having text information in English*").

Regarding claim 42, Kim/Taira teaches that if the plurality of interactive graphics streams do not include an interactive graphics stream corresponding to the obtained attribute information, the processor stores a stream number of a predetermined interactive graphics stream of the plurality of interactive graphics streams in the player status register in the apparatus, and the decoder reproduces the predetermined interactive graphics stream together with the audio-visual data stream (see Kim

paragraph [0044], "*In terms of hardware, the presentation engine 5 is set to have a first default value of markup document language information of the reproducing apparatus, that is, the information about a language of the markup document that is displayed when the interactive mode is selected. For example, the reproducing apparatus to be sold in English-speaking nations has the markup document language information that commands a selection of the markup document having text information in English*").

Regarding claim 43, Kim/Taira teaches that each of the plurality of interactive graphics streams comprises information required to provide a graphical interactive display and associated commands of the graphical interactive display (see Taira column 36 lines 45-53, "*In each of n VTSM language units (VTSM.sub.-- LU) 352 prepared for respective languages, VTSM menu language unit information (VTSM.sub.-- LUI) 353 and VTSM.sub.-- PGCI search pointers (VTSM.sub.-- PGCI.sub.-- SRP) 354 of a number corresponding to the number of menu program chains are provided as shown in FIG. 70, and VTSM.sub.-- PGC information items (VTSM.sub.-- PGCI) 355 searched for by the search pointers and corresponding in number to the menu program chains are provided as shown in FIG. 70*").

Regarding claim 44, Kim/Taira teaches that each of the plurality of interactive graphics streams comprises information required to provide a graphical interactive display and associated commands of the graphical interactive display (see Taira column 36 lines 45-53, "*In each of n VTSM language units (VTSM.sub.-- LU) 352 prepared for respective languages, VTSM menu language unit information (VTSM.sub.-- LUI) 353 and VTSM.sub.-- PGCI search pointers (VTSM.sub.-- PGCI.sub.-- SRP) 354 of a*

number corresponding to the number of menu program chains are provided as shown in FIG. 70, and VTSM.sub.-- PGC information items (VTSM.sub.-- PGCI) 355 searched for by the search pointers and corresponding in number to the menu program chains are provided as shown in FIG. 70").

Regarding claim 45, Kim/Taira teaches that the processor provides the attribute information in the player status register to the decoder (see Taira column 10 lines 24-41, "*The stored reproduced data is processed in the system processor section 54, which sorts the data into video data, audio data, and sub-picture data, are supplied to the video decoder section 58, audio decoder section 60, and sub-picture decoder section 62, respectively, and are decoded at the respective decoders*").

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2003/0012558) *supra*, Taira (US 6,009,234) *supra*, and Abecassis, United States Patent 6,289,165.

Regarding claim 40, Kim/Taira teaches that the attribute information comprises menu language information (see Taira column 43 lines 51-56, "*the language previously held in the apparatus, or the player, is referred to and an audio stream and a video stream are set*"). However, Kim/Taira does not explicitly teach that the attribute information includes viewer class information, sub-title language information, and audio language information. Abecassis teaches viewer class information (see Abecassis column 1 lines 18-28, "*capability to play one of a plurality of different content versions*"), sub-title language information (see Abecassis column 1 lines 18-28, "*Many DVDs*

include subtitles and/or closed captioning in a plurality of languages"), and audio language information (see Abecassis column 1 lines 29-36, "*Devices capable of playing DVDs provide for… select language of the audio*"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include any or all of these common DVD attributes disclosed by Abecassis in the invention of Kim/Taira because they are standard DVD attributes that were well known in the art at the time the invention was made.

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2003/0012558) *supra*, Taira (US 6,009,234) *supra*, and Lamkin et al. (hereinafter Lamkin), United States Patent Application Publication 2002/0078144.

Regarding claim 46, Kim/Taira teach every limitation of claim 46 but does not explicitly teach that the menu language information is recorded in player status register number 18, and an interactive graphics stream number is recorded in player status register number 0. Kim/Taira does not explicitly disclose how the processor internally makes use of the specific player status registers in the reproduction device. Kim does disclose that language information is stored within the reproducing apparatus (see Kim paragraph [0062], "*the presentation engine 5 of the reproducing apparatus retrieves the language information contained in the file VIDEO_TS.IFO and determines whether a language designated as the first default value of the reproducing apparatus exists in the language information in operation 701*"). Taira also discloses a language code stored in the reproducing apparatus (see Taira column 40 lines 13-49, "*as shown in step S213, it*

is determined whether the language code (=b) (VMGM.sub.-- LCD) written in the search pointer (VMGM.sub.-- LU.sub.-- SRP) of VMGM.sub.-- LU coincides with the language code (=B) specified in the reproducing apparatus, or the default language code").

Lamkin page 30 shows a table of DVD player internal registry values, showing registers 0 and 18. Register 0 is the "Menu Description Language Code (M_LCD or AMGM_LCD)", while Register 18 appears to store a related value of "INI_LCD for SPST". It was well known in the art at the time the invention was made that the registers 0 and 18 in the reproduction device were used in the manner recited in the instant claims. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the registers 0 and 18 as taught by Lamkin in the invention of Kim/Taira because it was a well known feature of optical disc reproduction systems.

Response to Arguments

Applicant asserts that Kim fails in its entirety to tech or suggest anything remotely resembling "a plurality of interactive graphics streams" because one of ordinary skill in the art would clearly find that the "multiple markup documents" of Kim completely fail to teach or suggest anything remotely resembling "a plurality of interactive graphics streams". Examiner respectfully disagrees.

Examiner notes that the "multiple markup documents" equate to the AV data itself and not the AV data streams. However, as well known in the art, AV data in transit to a display device is an AV data stream. Kim describes producing AV data streams

from AV data at length, for example in paragraph [0011], "*To achieve the above and other objects, there is provided an information storage medium containing* ***audio/video (AV) data, multiple markup documents*** *which contain text information on respective multiple languages to be displayed in a selected language and define a display window* ***to display a video picture corresponding to an AV data stream decoded and reproduced from the AV data****, and multi-language markup document information selecting a markup document to be displayed in the selected language from the multiple markup documents.*" (emphasis added). That is, while the "multiple markup documents" themselves are not graphics streams, they become graphics streams once they are sent to the display apparatus for display. The act of using the multiple markup documents to display data on screen produces "a plurality of interactive graphics streams corresponding to the audio-visual data stream, which are used to control reproduction of the audio-visual data stream", as recited in the instant independent claims.

Applicant further asserts that the language code of Taira is not stored in the player apparatus, but instead stored in the decoder sections 58, 60, and 62. Examiner respectfully disagrees.

Figure 1 of Taira shows a schematic diagram of the optical disc apparatus. It is clearly shown in Taira Figure 1 that the decoder sections 58, 60, and 62 are all part of the apparatus.

Applicant further asserts that Taira does not teach a player status register. Examiner respectfully disagrees.

It is noted that a “player status register” is known in the art as nothing more than a memory location in the reproducing device storing a variable that indicates a code or status. While Taira does not specifically use the term "player status register", Taira does teach extensively of registering values into memory (for example, Taira column 19 line 53), accessing values stored in registers (for example, Taira column 35 line 1), and manipulating register values (for example, Taira column 43 line 31). The registers taught by Taira are player status registers.

Applicant further asserts that the Office admitted that the Abecassis reference failed to teach or suggest "viewer class information,... sub-title language information,... and audio language information" during the Personal Interview conducted on April 21, 2009. Examiner respectfully disagrees.

In the Personal Interview conducted on April 21, 2009, no agreement with respect to the claims was reached and examiner stated, "Upon cursory review, the amended claims appear to overcome the prior art rejections of record.” Applicant affirmed this statement in the Applicant Interview Summary filed May 15, 2009. Examiner did **not** admit that the Abecassis reference failed to teach or suggest "viewer class information,... sub-title language information,... and audio language information" during the Personal Interview or in the subsequently issued Office Action. The Abecassis reference was withdrawn simply because the newly applied art (Yahata) was

believed to teach the "viewer class information,... sub-title language information,... and audio language information". The amendments made to the independent claims filed February 17, 2009 necessitated the application of Yahata as a 35 USC 102(a) reference and rendered arguments regarding the Suzuki and Abecassis references moot.

Applicants reassert the argument made on page 16 of the Amendment Accompanying Request for Continued Examination dated February 17, 2009. In that argument, applicants argued that the "viewer class information, sub-title language information, and audio language information" as described by Abecassis cannot be considered as both "attributes typically stored on DVD discs", and also attribute information that is "obtained from a player status register in the apparatus". Examiner respectfully disagrees.

As described in the preceding rejections, Abecassis teaches viewer class information (see Abecassis column 1 lines 18-28, "*capability to play one of a plurality of different content versions*"), sub-title language information (see Abecassis column 1 lines 18-28, "*Many DVDs include subtitles and/or closed captioning in a plurality of languages*"), and audio language information (see Abecassis column 1 lines 29-36, "*Devices capable of playing DVDs provide for… select language of the audio*"). While these segments of data are commonly stored on DVDs, they must also have corresponding attributes stored in player status registers of the reproducing device. The attributes corresponding to those segments of data stored on the DVDs must necessarily be stored on the reproducing device so that the correct data can be

selected to be streamed to the display device. In other words, the DVD might store sub-title language information in English, French, and Chinese, but there must be an attribute on the reproducing device indicating which of those languages to stream to the television screen. This argument is supported in Abecassis Summary of Invention, column 2 lines 4-9, "*It is also an object to provide for the automated selective retrieval of non-sequentially stored, parallel, transitional, and overlapping video segments from a single variable content video source, responsive to the viewer's video content preferences, and transmits the selected segments as a logical, seamless, and continuous version of the video.*".

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Alvesteffer whose telephone number is (571)270-1295. The examiner can normally be reached on Monday-Friday 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on (571)272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stephen Alvesteffer
Examiner
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/S. A./
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